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A NATION'S HEALTH AT RISK:

A NATIONAL AND STATE REPORT ON AMERICA'S 36 MILLION PEOPLE WITHOUT A REGULAR HEALTHCARE PROVIDER

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Introduction

Today in America, some 36 million Americans lack access to basic medical care – some of whom actually *have* health insurance coverage – because they live in communities where there is an acute shortage of health care providers. Thirteen states alone account for nearly two-thirds of people who are unable to access a regular health care provider due to this burgeoning crisis. This health care trend has gone largely ignored by the mainstream media, which has focused almost exclusively on the plight of the 43 million Americans who lack health insurance. To be sure, the growing number of people who don't have health insurance is a national crisis with severe social, economic and health consequences. But to address America's health care crisis as a whole, national leaders and policy-makers must take a hard look at the reality of health care options, where there are too few available health care providers in places where there are too many people who need them.

This report describes who and where those without a regular source of health care are, why having a regular primary care provider is so important, and how the national initiative to expand community health centers has helped to meet this pressing need. In addition, this report describes the important role of health centers in providing quality health care to the nation's most vulnerable populations while producing significant cost savings for the health care system. For an explanation of the data sources and analysis methods utilized by this study, refer to the notes in the tables in each appendix. This analysis finds that:

- The growth of health centers during fiscal years 2002 and 2003 reduced the number of Americans without a regular source of care by over 2.4 million over that period, but 36 million people remain without a regular source;
- The number of Americans without a regular source of care would have been reduced by another nearly 4 million (an additional 11 percent) over this time period had all qualified applications for new health center cites been funded; and
- Health centers serve as the regular source of care for 1 in 5 of the nation's low income uninsured population.

While this report focuses on the extensive problem of the lack of available primary care, this issue is closely related to other barriers of care, such as uninsurance and affordability, because only when both barriers are removed will the sizeable gaps in access to care that are central features of the nation's health care crisis even begin to diminish. True progress in resolving this crisis will necessarily involve *both* expanding coverage to those who are uninsured *and* ensuring that all Americans have a usual source of care.

Who are the Unserved?

What is remarkable about those without access to a regular provider is that they could be anyone from a "soccer mom" to a grocery store worker. We refer to these individuals as the "medically unserved" because of a lack of available physicians in their communities, rendering them unable to get the care they need, when they need it, when it makes the most sense, when it can keep them healthy or treat a problem before it becomes serious and costly. They consist of individuals in each U.S. county who remain after accounting for patients of every doctor in private practice there (and in this analysis, those who remain even after health center clinicians are taken into account).[i] By the end of 2003, 36 million Americans were considered unserved because of their lack of access to a provider for regular care.[ii]

Thus, the medically unserved live in inner-city neighborhoods and isolated rural communities that have been designated by the federal government as having severe shortages of providers – especially providers of primary health care. The unserved may live near you. In fact, the National Center for Health Statistics (NCHS) at the Center for Disease Control and Prevention found very similar numbers of individuals without access to a usual source of care,[iii] and in a separate report[iv] found that among adults:

- **81 percent of all medically unserved people live in urban or suburban communities**.

- **Half (51 percent) of the medically unserved are uninsured while 43 percent have private insurance**, and Medicaid beneficiaries were more likely to be unserved than anyone else with coverage. By the same token, much higher proportions of persons with Medicaid or Medicare coverage (19 percent) or who are uninsured (17 percent) identify a health center or community clinic as their regular source of health care as do those with private insurance (12 percent). These providers obviously play a major role in reducing the number of people who would otherwise be medically unserved, regardless of insurance status.

- **Just over 2 in 5 of those without a regular source of care are members of low-income families**.

- **2 in 5 of medically unserved Americans are members of minority groups**. Hispanic/Latino adults have the highest concentration of adults without a usual source of care, at 28 percent of all Hispanic/Latinos, followed by Asian-Pacific Islander adults at 16 percent and African American adults at 12 percent. Here also, disproportionate numbers of all minority adults cite a health center or community clinic as their regular source of care, including 42 percent of all American Indian and Alaska Native adults, 17 percent of all Hispanic/Latino adults, 16 percent of all African American adults, and 13 percent of Asian-Pacific Islander adults.

It is important to note that the number of medically unserved would be significantly higher – 50 million people in all – were it not for America's community health centers, which last year served as the family doctor and health care home for more than 14 million people who would otherwise face barriers in gaining access to access to health care, including a lack of available health care providers.

Where are the Unserved?

Medically unserved Americans live in every state, and in all but 417 of the 3140 U.S. counties.[v] The highest concentrations of unserved people are found in metropolitan areas with populations of less than 1 million. Rural communities would thus appear to have the least pressing provider of care problems – but that is likely because fully one-fifth of all rural resident adults receive care through a health center or community clinic, a rate nearly twice that of urban residents throughout the country.[vi] But no matter where the medically unserved live, the consequences of not having a regular provider impacts the surrounding community in a variety of ways: elevated infant and childhood illness and mortality rates, over-utilization of emergency rooms and other inappropriate providers for primary care services, and hospitalization rates for preventable conditions that are significantly higher than the national average.[vii]

Because the health care access barriers the unserved face go well beyond financial means, extending health insurance coverage to all unserved individuals would not appreciably help them get the health care they need, simply because there are not enough providers of care available in their communities who are able and willing to care for them. Compounding this is the fact that there are fewer practicing primary care physicians, where most Americans receive their formal health care and preventive services. The Robert Graham Center, which provides analysis concerning family practice and primary care, reports that the number of primary care physicians per capita has been steadily shrinking, while the number of specialists has been rapidly growing – accounting for more than three-quarters of the growth in per capita physicians from 1980 to 1999.[viii] Moreover, even if a sufficient number of providers and insurance coverage were available, it is possible that individuals with certain forms of coverage would still face barriers to care. For example, a recent report noted that only half of physicians are willing to accept all new Medicaid patients, and one-fifth are not accepting any.[ix]

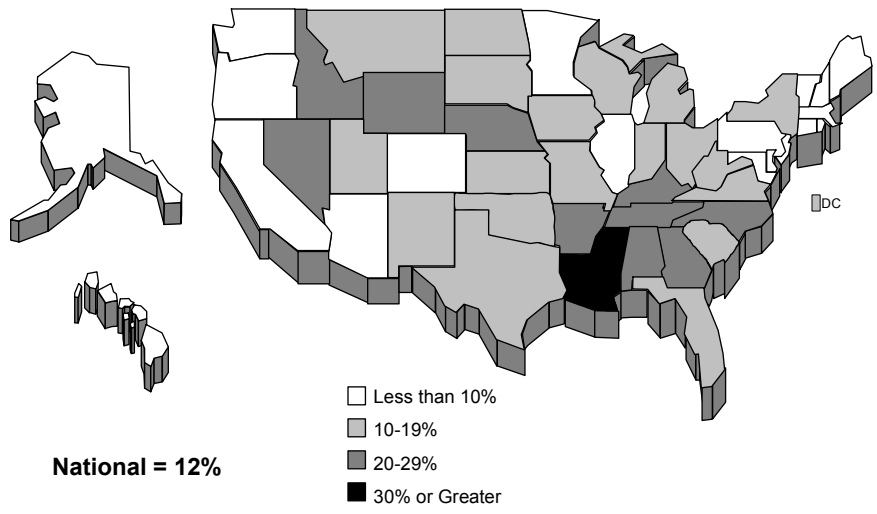
The table in Appendix A displays the unserved populations for each of the states after health center expansion occurred in 2002 and 2003. In each of 13 states (**Alabama**, **California**,

Florida, **Georgia**, **Louisiana**, **Michigan**, **Missouri**, **New York, North Carolina**, **Ohio**, **Pennsylvania**, **Tennessee**, and **Texas**), the medically unserved population exceeds 1 million. Together, these 13 states account for almost two-thirds (63 percent) of all Americans who lack a regular health care provider.

One in eight Americans – 12 percent of the population – is medically unserved, but in some states, the unserved account for a much higher percentage of the population. Map 1 displays the states according to their proportions of unserved populations. In two states (**Louisiana** and **Mississippi**), the unserved account for one of every three state residents, and in ten others (**Alabama**, **Arkansas**, **Georgia**, **Idaho**, **Kentucky**, **Nebraska**, **Nevada**, **North Carolina**, **Tennessee**, and **Wyoming**) at least one in five residents have no regular provider of care.

Map 1

Percent of State Population That Is Medically Unserved, 2003



Note: Unserved numbers are based on a private practice provider to patient ratio for each county and accounts for health center providers and patients.
Source: NACHC, 2004. Based on population data from the Census Bureau and from the NACHC REACH data on the unserved (minus total health center patients for the end of FY 2003).

The Importance of Having a Usual Source of Care AND Health Insurance

Today in America, much attention is devoted to the fact that 43 million people – one of every 6 persons under the age of 65 – have no health insurance coverage.[x] Much has been written about the effects of being uninsured:

- People who lack health insurance are more likely to forego needed care, resulting in negative health status and adverse financial consequences.[xi]

- As a result of forgoing care, the uninsured receive fewer preventive services, are less likely to receive regular care for chronic diseases, are less likely to fill a prescription, and are more likely to be hospitalized for a condition that could have been avoided with timely access to ambulatory care.[xii]

- Two-thirds of the uninsured are in families with incomes less than 200 percent of poverty,[xiii] and yet these individuals, who can least afford to pay for health care services, are often charged more for services than insured patients who benefit from discounts negotiated by their insurer.[xiv]

- Uninsured adults cite cost as the most important reason for not having insurance and cite cost as a significant obstacle to obtaining care while uninsured.[xv]

However, money and health insurance alone do not guarantee good health. The Institute of Medicine (IOM) concluded in a recent report that although coverage remains an important way to access services, it is "neither necessary nor sufficient to obtain health care," at least from private providers of preventive care.[xvi] A host of studies have concluded that having a regular doctor improves access to primary care and health outcomes more effectively than having insurance coverage or even the ability to pay fully for one's health care alone. When people have a regular source of health care, they use it more often[xvii] and thus are better able to prevent a costlier illness later on.[xviii] Primary care is thus essential for people with chronic diseases, such as diabetes or hypertension,

and for those needing health screenings, such as cancer screenings. In fact, a regular source of care is related to better management of chronic diseases, increasing cancer screenings for women by one-third, and even fewer lawsuits against emergency rooms.[xix] Another study bears out the fact that not having a regular provider is a greater predictor of delay in seeking care than insurance status, and that among insured persons, those with a regular physician enjoyed greater access to care than those without. Patients who have a regular physician are also less likely to go to the emergency room for health care.[xx]

Several studies from John Hopkins University have found that mortality is related to a lack of primary care physicians. One recent study found that a higher ratio of primary care physicians to population is associated with lower mortality rates, while higher rates of specialty care providers (except primary care subspecialties) are associated with higher mortality rates.[xxi] Another study found that individuals residing in states with a higher primary care physician-population ratio are more likely to report being in good health than those living in states with a lower ratio.[xxii] Researchers also found that adequacy of primary care (together with income equality) is strongly related to life expectancy and total mortality, and that greater use of primary care significantly reduces stroke and postneonatal mortality.[xxiii] Thus, improved access to a primary care provider could lower mortality rates and improve health care considerably.

Furthermore, numerous studies have concluded that having *both* health insurance coverage and a regular source of care results in improved overall health for the entire population. One recent study found that having both coverage and a regular provider of care resulted in improved receipt of a variety of preventive services, and noted that "improving preventive service delivery to the entire U.S. population requires expanding health insurance coverage and improving access to comprehensive and continuous primary care services."[xxiv] Another study found that among those who are insured, having a continuous provider of care resulted in lower costs of care, even after controlling for illness.[xxv] Clearly, even as efforts may be undertaken to extend coverage to those who are uninsured, policymakers will want to pay close attention to where those individuals, and the millions who will remain uninsured, are able to turn for affordable, accessible primary health care.

America's Community Health Centers: Caring for the Unserved and Uninsured

For nearly 40 years, community health centers have been reaching out to people with no regular source of health care, offering them accessible, affordable, and appropriate health care in communities where the medically unserved live and work. Today, health centers are located in more than 3,500 communities – typically low income inner-city neighborhoods or resource-poor rural communities – providing top quality medical, dental and other health care in an ethnically and culturally responsive way, open to everyone in their communities but with a special focus on making care available and accessible to those wo are uninsured and publicly-insured, and to other vulnerable groups, such as farmworkers and homeless individuals. This year they will be the family doctor and health care home for 15 million patients, who speak to the basic founding mission behind the Health Centers program, as they include:

- 1 of every 8 uninsured Americans and 1 of every 9 Medicaid beneficiaries;
- 1 of every 7 people of color (including more than 20% of minority populations in most southern states);
- 1 of every 9 rural Americans; and
- 1 of every 5 low-income children.

The Health Centers program was designed as a unique public-private partnership, with federal resources provided directly to community organizations for the development and operation of local health care systems. Under program rules, a majority of the membership on each local health center's policy board must consist of individuals who receive their health care at the local center and who represent the community being served. In this way, communities in need are given the resources to address their most

pressing health problems, and they are then held responsible for doing so. Health centers are improving access to preventive services for vulnerable populations that would otherwise not have access to certain services.[xxvi] Health centers generate other benefits for needy communities as well: they employ over 70,000 people, including many local community residents; they bolster local businesses; and they stabilize neighborhoods by stimulating community development and economic growth.

America's health centers are unique among most primary care providers because they remove common barriers to care by serving communities who otherwise confront geographic, language, cultural and other barriers. They are located in high-need areas identified by the federal government as having elevated poverty, higher than average infant mortality, and where few physicians practice. They are also open to all residents, regardless of insurance status, and provide free or reduced cost care based on ability to pay. Health centers tailor their services to fit the special needs and priorities of their communities, and provide services in a linguistically and culturally appropriate setting, which helps avoid under-use of preventive services and substantial treatment disparities.[xxvii] In fact nearly a third of all patients are best served in languages other than English.[xxviii] Moreover, health centers offer services that help their patients access health care, such as transportation, translation, case management, health education, and home visitation.

Health Centers Are Growing to Reach More People Without a Regular Provider

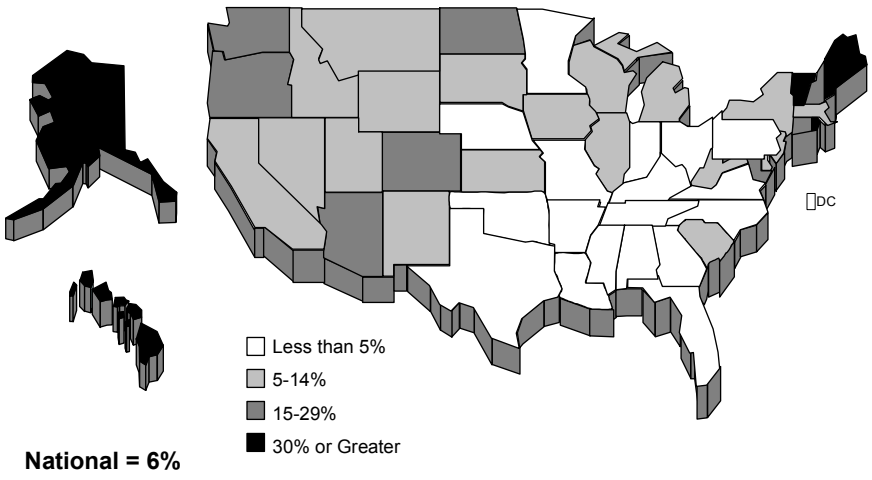
President Bush is among the national leaders who understand the value of health centers, and has proposed a five-year initiative to increase federal funding for the program to at least $2 billion by Federal Fiscal Year 2006. The President's call has received a very supportive bipartisan response from the Congress, which for each of the first two years of his initiative has approved the largest increases in funding over the program's entire history, enabling the health centers to reach out and serve more than 2.6 million new people since he took office. Over the full five-year period, the President's proposed

increases in funding would support new and expanded sites and services designed to serve an estimated 6.1 million additional patients, while a bipartisan Congressional REACH (Resolution to Expand Access to Community Health) initiative seeks to extend care to an additional 10 million patients over the same period. The table in Appendix B displays the number of new health center patients in each state since the President's initiative began in 2001, as well as the change in each state's unserved population. The United States on average saw a 6 percent reduction in the number of state residents who are unserved.

Map 2 display the proportionate reductions in the number of state residents who are unserved as a result of the expansion of health centers during fiscal years 2002 and 2003. The greatest reductions in unserved – more than one-third – have occurred in **Alaska**, **Hawaii**, **Maine**, **Rhode Island**, and **Vermont** while another eight states (**Arizona**, **Colorado, Connecticut**, **Maryland**, **New Hampshire**, **North Dakota**, **Oregon**, and **Washington**) have seen their unserved populations fall by 15 percent or more.

Map 2

Reduction in Unserved After FY2002 and FY2003 Health Center Expansion



Note: Unserved numbers are based on a private practice provider to patient ratio for each county and accounts for health center providers and patients.
Sources: NACHC, 2004. Based on the NACHC REACH data on the unserved (minus total health center patients for the end of FY 2003) and data on new patients for FY2002 and FY2003 from the Bureau of Primary Health Care, HRSA, HHS.

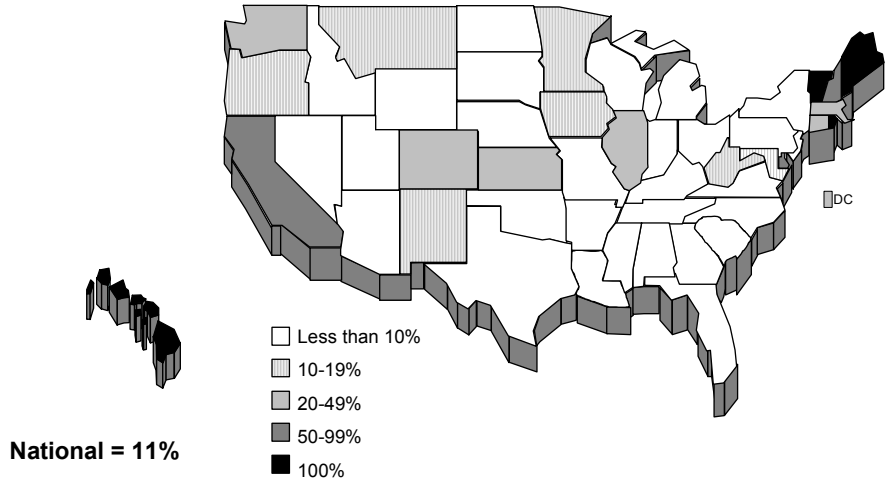
Even With a Growing Health Center Safety Net, Much Unmet Need Remains

Even after accounting for the 2.6 million new patients since 2001 (2.4 million among the states where the unserved problem is documented), there still remain 36 million medically unserved people throughout the country as of the end of fiscal year 2003. Clearly, much more needs to be done to bring available health center resources closer to meeting this pressing national need. During fiscal years 2002 and 2003, nearly 1,250 separate applications were filed with the U.S. Department of Health and Human Services (HHS) by states (and around an additional 30 from territories) seeking federal funding to establish or expand a local health center. However, even with the significant new federal support, only 411 applications were approved for funding among the states (and 7 from territories) over the 2-year period. It is important to reiterate that the applications that were not approved still met all basic qualifications for funding. If all of the applications submitted by qualifying organizations for new health center funding over the past 2 years had been funded, another nearly 4 million people within the continental US would be receiving care at those health centers – and the nation's medically unserved population would now stand at 32 million (a reduction of an additional 11 percent). The table in Appendix C shows the number of additional individuals who would have been served had all qualified applications been funded during fiscal years 2002 and 2003.

Map 3 displays the proportionate reductions in each state's unserved population which would have occurred had all qualified applications submitted during the past two years been funded. Four states (**Hawaii**, **Maine**, **Rhode Island**, and **Vermont**) would have eliminated all unserved persons from their states' populations, another three (**California**, **Delaware**, and **New Hampshire**) would have reduced their 2003 unserved populations by at least half, and another six (**Colorado**, **Connecticut**, **Illinois**, **Kansas**, **Massachusetts**, and **Washington**) and the **District of Columbia** would have reduced their 2003 unserved population by at least 20 percent.

Map 3

Unrealized Additional Reduction in Unserved Had All Applications for New Health Center Cites Been Funded, FY2002 and FY2003



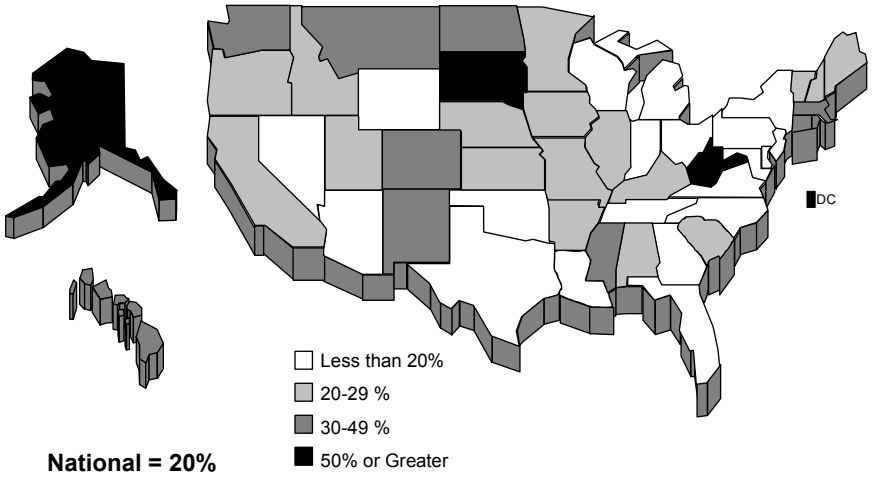
Notes: Assumes new patients from all applications meeting all grant requirements. Alaska is excluded because the projected number of patients from unfunded applications is unknown. Applications from Hawaii, Maine, Rhode Island, and Vermont could have achieved greater than 100%.
Sources: NACHC, 2004. Based on data on applications and projected patients from the Bureau of Primary Health Care, HRSA, HHS, and data from the NACHC 2000 REACH data on the unserved minus total health center patients.

Health Centers Care for 1 in 5 Low-Income Uninsured Americans

Health centers serve as the regular provider of care for nearly 6 million people who lack health insurance today – 20 percent of all low-income uninsured Americans. In the last two years alone, newly-funded health centers have added more than 1 million low-income uninsured Americans to their patient rolls, and that number continues to climb rapidly. One Texas health center recently reported that their uninsured population has exploded by 73 percent in the last two years. The state of Washington recently found that the number of uninsured patients rose by 21 percent between January and October 2003 alone, compared to a 4 percent growth in insured patients.[xxix] As the table in Appendix D and the map below show, health centers in three states (**Alaska**, **South Dakota**, and **West Virginia**) and the **District of Columbia** provide care for at least half of their states' low-income uninsured populations, while in another 10 states (**Colorado**, **Connecticut**, **Hawaii**, **Massachusetts**, **Mississippi**, **Montana**, **New Mexico**, **North Dakota**, **Rhode Island**, and **Washington**) they serve more than one in three low-income uninsured residents.

Map 4

Percent of Low Income Uninsured Served by Health Centers, 2003



Note: Low income is defined as at or under 200% of poverty. While total low income uninsured includes non-elderly, health center uninsured patients are predominately non-elderly.
Sources: NACHC, 2004. Based on low income uninsured, 2001-2002 data from the Kaiser Commission on Medicaid and Uninsured and on data on health center uninsured patients prepared by NACHC and from the Bureau of Primary Health Care, HRSA, HHS.

Health Centers: An Investment That Produces Significant Returns for Taxpayers

Several studies have found that health centers save the Medicaid program at least 30 percent in annual spending for health center Medicaid beneficiaries due to reduced specialty care referrals and fewer hospital admissions.[xxx] Based on that data, NACHC estimates that health centers already save almost $3 billion annually in combined federal and state Medicaid expenditures. That amount is nearly twice the current total of all Congressionally-appropriated funding provided to health centers this year. In other words, every federal dollar invested in health centers – even as it supports the cost of care for nearly 6 million people with no health insurance whatsoever – produces nearly a two-dollar return for the Medicaid program.

But that only tells a part of the story, because health centers save the health care system in other ways as well. Numerous studies have found that the presence of a health center has

been associated with a reduction in unnecessary emergency room use, together with improved health outcomes and lower incidence of chronic disease and disability.[xxxi] Thus, a further investment in expanding health centers to serve more unserved and uninsured individuals could produce a savings in reduced emergency room use that alone would more than repay the investment. In fact, a 1994 landmark study determined that redirecting "nonurgent" emergency department visits to more appropriate settings, such as primary care sites, could save between $5 and $7 billion a year.[xxxii]

A major reason for health centers' success is found in the high quality health care they provide. Numerous studies over the years have documented that health centers deliver effective, high quality health care. For example, studies have found that communities that are lucky enough to have a health center have lower infant mortality rates of up to 40 percent.[xxxiii] In fact, the IOM and the General Accounting Office (GAO) have recognized health centers as models for screening, diagnosing, and managing chronic conditions such as diabetes, cardiovascular disease, asthma, depression, cancer, and HIV.[xxxiv] Health centers' efforts have lead to *improved health outcomes* for their patients, as well as *lowered the cost of treating patients* with chronic illness. For example, a study done in South Carolina compared total costs for diabetic patients enrolled in the state employees' health plan at different providers, and found that patients treated at a specialist or family practitioner cost more than *three times* as much as those who were treated at a health center.[xxxv]

Because of their success in removing barriers to care, the same IOM and the GAO reports have each recognized the success of health centers in reducing or even eliminating the health gaps for racial and ethnic minorities, as well as low income populations. A recent landmark study found that *health centers are associated with reducing racial and ethnic disparities* in several key areas, such as tuberculosis, infant mortality, access to prenatal care, and overall death rates.[xxxvi] In fact, disparities in health status do not exist among health center patients, a success likely attributable to health centers' culturally sensitive practices and community involvement – features that other primary care settings often lack.[xxxvii] It is noteworthy that another recent IOM report on the topic of health

disparities specifically recognized the importance of community health centers, stating that "the community health center model has proven effective not only in increasing access to care, but also in improving health outcomes for the often higher-risk populations they serve."[xxxviii]

A key message for policymakers, at the federal and state levels, is that dramatic improvements in health care can be achieved from system change. But any health care organization that is working for quality improvement has a need for infrastructure and the development of capacity. Policymakers should recognize that health centers are making these changes and generating significant savings for the system, even as they improve the well-being of their patients and communities. By sharing the savings that they produce with the centers themselves, policymakers will be enabling the centers to cover more medicines for their patients, ensure better access to specialists, and support innovations like group visits and outreach.

Already cited as one of the 10 most successful federal programs – and *the* most successful program in all of HHS – by the White House Office of Management and Budget (OMB), a continued and expanded investment in health centers will guarantee improved health outcomes for millions more Americans and further cost savings. Efforts to provide increased access to, and coordinate the delivery of, vital primary health care and related services for underserved and vulnerable Americans will not only contribute to improved health status, but will also reduce unnecessary care and the overall costs of health care. If policymakers would look at what health centers are doing as a financing system, and share the savings with those who produce them, they will deliver even more.

ENDNOTES

[i] The ratio of full-time providers to patients (1:1500) determines the number of unserved in each county or part-county. Those "leftover" or "left out" of the ratio are the unserved. Counties with too few providers are designated by the federal government as Health Professional Shortage Areas (HPSAs). For more on HPSA designation status, see the Bureau of Health Professions, Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS) at http://bhpr.hrsa.gov/shortage/federal.

[ii] The federal Bureau of Primary Health Care within the Health Resources and Services Administration at HHS includes in its count of unserved all health center patients because health center physicians are not included in the private provider-patient ratio that determines unserved, thus finding that 50 million Americans are unserved. Because this analysis aims to look at the number of people without access to a private physician or a health center doctor, health center patients have been removed from the calculation of unserved from every state. Under this assumption, NACHC finds the number of unserved to be 36 million at the end of fiscal year 2003. Other community providers, such as free clinics, were not included in this analysis.

[iii] National Center for Health Statistics (NCHS), CDC, HHS. *Early Release of Estimates Based on Data from the January-June 2003 National Health Interview Survey*. December, 2003.

[iv] NCHS, CDC, HHS. *Summary Health Statistics for US Adults: National Health Interview Survey, 2001*. Vital and Health Statistics. Series 10, Number 118. January 2004. This survey was designed to ask if a person has a usual source of care and if so where. Because the survey did not consider availability of providers, it may reflect other barriers (e.g., insurance and cost) to a usual source of care. However, it is still interesting to note the high proportions of insured – even privately insured – people who reported being without a usual source.

[v] National Association of Community Health Centers REACH data on the unserved. For more information on REACH, email research@nachc.com.

[vi] NCHS, 2004.

[vii] See studies comparing communities with and without health centers or sufficient numbers of primary care providers. Frick KD and Regan J. "Whether and Where Community Health Centers Users Obtain Screening Services." November 2001 *Journal of Healthcare for the Poor and Underserved* 12(4):429-45. Carlson BL, et al, "Primary Care of Patients without Health Insurance by Community Health Centers." April 2001 Journal of Ambulatory Care 24(2):47-59. Politzer R, et al. "Inequality in America: The Contribution of Health Centers in Reducing and Eliminating Disparities in Access to Care." 2001 *Medical Care Research and Review* 58(2):234-248. Epstein AJ. "The Role of Public Clinics in Preventable Hospitalizations among Vulnerable Populations." 2001 *Health Services Research* 32(2):405-420. Falik M, et al. "Ambulatory Care Sensitive Hospitalizations and Emergency Visits: Experiences of Medicaid Patients Using Federally Qualified Health Centers." 2001 *Medical Care* 39(6):551-56. Falik M, et al. *ACSC Experience by Usual Source of Care: Comparing Medicaid Beneficiaries, CHC-Users and Comparison Groups*. MDS Associates, Wheaton, MD, 1998. Starfield B, et al. "Costs vs. Quality in Different Types of Primary Care Settings," 28 December 1994 *Journal of the American Medical Association* 272(24):1903-1908. Duggar BC, et al. *Utilization and Costs to Medicaid of AFDC Recipients in New York Served and Not Served by Community Health Centers*. Center for Health Policy Studies, 1994. Duggar BC, et al. *Health Services Utilization and Costs to Medicaid of AFDC Recipients in California Served and Not Served by Community Health Centers*. Center for Health Policy Studies, 1994. Braddock D, et al. *Using Medicaid Fee-For-Service Data to Develop Health Center Policy*. Washington Association of Community Health Centers and Group Health Cooperative of Puget Sound, 1994. Stuart ME and Steinwachs DM. "Patient-Mix Differences Among Ambulatory Providers and Their Effects on Utilization and Payments for Maryland Medicaid Users." December 1993 *Medical Care* 34(12):1119-1137. Gorman S and Nelson H. "Meeting the Data Needs of Neighborhood Health Centers." Presented at the

102nd meeting of the American Public Health Association, 1984. Grossman M and Goldman F. *An Economic Analysis of Community Health Centers*. National Bureau of Economic Research, 1982. Schwartz R and Poppen P. *Measuring the Impact of Community Health Centers on Pregnancy Outcomes*. Abt Associates, 1982.

[viii] The Robert Graham Center. "The US Primary Care Physician Workforce: Minimal Growth, 1980-1999." One-Pager Number 22, October 2003. www.graham-center.org/x467.xml

[ix] Cunningham PJ. "Mounting Pressures: Physicians Serving Medicaid Patients and the Uninsured, 1997-2001." Center for Studying Health System Change, Tracking Report No. 6, December 2002. www.hschange.org.

[x] US Census Bureau. *Health Insurance Coverage in the United States: 2002*. Current Population Reports. September 2003. www.census.gov

[xi] Hadley J. *Sicker and Poorer: The Consequences of Being Uninsured*. Prepared for the Kaiser Commission on Medicaid and the Uninsured, May 2002. Institute of Medicine (IOM). *Coverage Matters: Insurance and Health Care*. National Academy of Sciences Press, 2001.

[xii] IOM, 2001 at 30.

[xiii] Id. at 62.

[xiv] Id. at 30.

[xv] Id. at 51. Hadley, 2002 at 37 (citing Thomas EJ, Simpson PM, Yeh YS, et al. "Variation in Therapy and Outcome for Pediatric Head Trauma Patients." 2001 May *Critical Care Medicine* 29(5):1056-61). Families USA. *Getting Less Care: The Uninsured with Chronic Health Conditions*, 2001 at 17.

[xvi] IOM, 2001.

[xvii] Lambrew J. et al "The Effects of Having a Regular Doctor on Access to Primary Care." *Medical Care.* 34(2):138-151. February 1996.

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Appendix A

Number and Percent of Unserved by State After FY2002 and FY2003 Health Center Expansion

State	Total Population, 2003	Unserved Population, 2003	Percent Unserved
Alabama	4,500,752	1,325,428	29%
Alaska	648,818	20,434	3%
Arizona	5,580,811	326,101	6%
Arkansas	2,725,714	636,207	23%
California	35,484,453	2,498,753	7%
Colorado	4,550,688	272,949	6%
Connecticut	3,483,372	102,615	3%
Delaware	817,491	46,820	6%
District of Columbia	563,384	80,836	14%
Florida	17,019,068	2,195,915	13%
Georgia	8,684,715	1,907,670	22%
Hawaii	1,257,608	1,345	<1%
Idaho	1,366,332	277,867	20%
Illinois	12,653,544	632,687	5%
Indiana	6,195,643	809,064	13%
Iowa	2,944,062	339,747	12%
Kansas	2,723,507	351,249	13%
Kentucky	4,117,827	821,838	20%
Louisiana	4,496,334	1,630,978	36%
Maine	1,305,728	53,142	4%
Maryland	5,508,909	165,476	3%
Massachusetts	6,433,422	230,772	4%
Michigan	10,079,985	1,124,134	11%
Minnesota	5,059,375	454,920	9%
Mississippi	2,881,281	952,877	33%
Missouri	5,704,484	1,017,673	18%
Montana	917,621	150,308	16%
Nebraska	1,739,291	343,218	20%
Nevada	2,241,154	443,131	20%
New Hampshire	1,287,687	31,303	2%
New Jersey	8,638,396	557,531	6%
New Mexico	1,874,614	346,724	18%
New York	19,190,115	2,044,567	11%
North Carolina	8,407,248	1,664,904	20%
North Dakota	633,837	92,533	15%
Ohio	11,435,798	1,110,049	10%
Oklahoma	3,511,532	625,357	18%
Oregon	3,559,596	326,025	9%
Pennsylvania	12,365,455	1,103,118	9%
Rhode Island	1,076,164	23,916	2%

State	Total Population, 2003	Unserved Population, 2003	Percent Unserved
South Carolina	4,147,152	754,321	18%
South Dakota	764,309	147,866	19%
Tennessee	5,841,748	1,251,568	21%
Texas	22,118,509	3,956,574	18%
Utah	2,351,467	458,071	19%
Vermont	619,107	34,734	6%
Virginia	7,386,330	963,257	13%
Washington	6,131,445	299,269	5%
West Virginia	1,810,354	239,454	13%
Wisconsin	5,472,299	683,656	12%
Wyoming	501,242	119,181	24%
United States	290,809,777	36,048,131	12%

Note: Unserved numbers are based on a full time private practice provider to patient ratio of 1:1500 for each county. Those individuals left over are considered "unserved" because they do not have access to a regular source of primary health care. Each county unserved number is summed to determine state totals. Because health center providers are not included in the provider-patient ratio, the federal counts of unserved include health center patients. Thus, for this analysis, total unserved have been reduced by the number of patients seen at health centers. Patients from both federally-funded and non-federally-funded health centers are included. Other community providers of primary care were not included.

Sources:
Total Population, 2003: Census Bureau, June 2003.
Total Unserved, 2003: Based on NACHC REACH data on the unserved minus total health center patients for the end of FY 2003.

Appendix B

Health Center Patients, Unserved and Reduction in Unserved by State After FY2002 and FY2003 Health Center Expansion

State	Total Patients Served, 2001	2001 Unserved	New Patients, FYs 2002 and 2003	Total Patients Served, 2003	2003 Unserved	% Reduction in Unserved
Alabama	249420	1,326,007	580	250,000	1,325,428	0%
Alaska	46236	63,172	42,738	88,974	20,434	68%
Arizona	178916	415,384	69,888	268,199	326,101	21%
Arkansas	92982	653,002	16,795	109,777	636,207	3%
California	1933226	2,845,151	619,044	2,279,624	2,498,753	12%
Colorado	314877	356,199	83,250	398,127	272,949	23%
Connecticut	174607	140,105	37,787	212,097	102,615	27%
Delaware	11019	53,355	6,535	17,554	46,820	12%
District of Columbia	40697	82,896	4,060	42,757	80,836	2%
Florida	467766	2,258,642	62,727	530,493	2,195,915	3%
Georgia	196289	1,955,999	48,329	244,618	1,907,670	2%
Hawaii	73293	4,095	2,750	76,043	1,345	67%
Idaho	61558	298,200	20,333	81,891	277,867	7%
Illinois	587242	734,671	137,260	689,226	632,687	14%
Indiana	103990	844,295	28,861	139,221	809,064	4%
Iowa	76185	365,950	26,203	102,388	339,747	7%
Kansas	49176	387,040	13,431	84,967	351,249	9%
Kentucky	181678	841,563	37,725	201,403	821,838	2%
Louisiana	85498	1,651,060	17,652	105,580	1,630,978	1%
Maine	82273	86,536	0	115,667	53,142	39%
Maryland	115964	202,254	36,778	152,742	165,476	18%
Massachusetts	403432	267,250	70,068	439,910	230,772	14%
Michigan	314415	1,268,663	99,309	458,944	1,124,134	11%
Minnesota	96169	470,240	17,855	111,489	454,920	3%
Mississippi	275326	981,460	35,583	303,909	952,877	3%
Missouri	241145	1,040,137	27,964	263,609	1,017,673	2%
Montana	41122	170,788	20,480	61,602	150,308	12%
Nebraska	23798	352,953	13,235	33,533	343,218	3%
Nevada	43518	468,463	25,332	68,850	443,131	5%
New Hampshire	39631	36,832	8,107	45,160	31,303	15%
New Jersey	203494	602,958	41,462	248,921	557,531	8%
New Mexico	201252	393,420	49,238	247,948	346,724	12%
New York	932575	2,188,266	162,073	1,076,274	2,044,567	7%
North Carolina	234669	1,742,937	75,103	312,702	1,664,904	4%
North Dakota	9984	110,414	17,881	27,865	92,533	16%
Ohio	255328	1,150,444	22,000	295,723	1,110,049	4%
Oklahoma	54998	645,079	19,722	74,720	625,357	3%
Oregon	129218	390,362	64,337	193,555	326,025	16%

State	Total Patients Served, 2001	2001 Unserved	New Patients, FYs 2002 and 2003	Total Patients Served, 2003	2003 Unserved	% Reduction in Unserved
Pennsylvania	452722	1,147,969	25,456	497,573	1,103,118	4%
Rhode Island	85520	39,104	19,100	100,708	23,916	39%
South Carolina	204403	815,883	61,562	265,965	754,321	8%
South Dakota	36081	171,195	23,329	59,410	147,866	14%
Tennessee	194469	1,289,212	37,644	232,113	1,251,568	3%
Texas	480469	4,010,900	104,326	534,795	3,956,574	1%
Utah	62267	482,645	24,574	86,841	458,071	5%
Vermont	19274	53,458	18,724	37,998	34,734	35%
Virginia	152546	1,003,788	40,531	193,077	963,257	4%
Washington	472161	373,056	54,392	545,948	299,269	20%
West Virginia	234077	277,239	64,335	271,862	239,454	14%
Wisconsin	111938	722,786	26,200	151,068	683,656	5%
Wyoming	11156	125,979	6,798	17,954	119,181	5%
United States	11,676,747*	38,359,457	2,640,991*	14,039,617*	36,048,131	6%

* Includes territories, thus column does not sum national total. Territories are not reflected in the number of unserved.

Note: Unserved numbers are based on a full time private practice provider to patient ratio of 1:1500 for each county. Those individuals left over are considered "unserved" because they do not have access to a regular source of primary health care. Each county unserved number is summed to determine state totals. Because health center providers are not included in the provider-patient ratio, the federal counts of unserved include health center patients. Thus, for this analysis, total unserved have been reduced by the number of patients seen at health centers. Patients from both federally-funded and non-federally-funded health centers are included. Other community providers of primary care were not included. Territories are not reflected in the number of unserved in the US but are reflected in total new patients for FY 2002 and 2003. Thus, 2003 Unserved is a reflection of the drop in unserved due to additional health center patients for each state, and not 2001 Unserved minus total new patients including territories. Total patients served in 2003 does not equal total served in 2001 plus new patients for 2002 and 2003 because there was a reduction in the number of patients served by non-federally funded health centers during this time. The reduction is due to the fact that slightly more non-federally funded health centers competed for and received federal funds during this time (and a few no longer operate) than were non-federally funded health centers established during this time. The greatest reduction occurred in California.

Sources:
Unserved, 2001 and 2003: Based on NACHC REACH data on the unserved minus total health center patients.
New Patients: Bureau of Primary Health Care, HRSA, HHS, 2002 and 2003.

Appendix C

Additional Individuals Who Would Have Been Served Had All Qualified Applications for New Health Center Cites Been Funded, and the Unrealized Reduction in Unserved by State, 2003

State	Total Qualified Applications for Federal Funding, FYs 2002 and 2003	Unfunded Applications, FYs 2002 and 2003	Projected Patients From Unfunded Applications, FYs 2002 and 2003	Unrealized Reduction in 2003 Unserved
Alabama	33	32	76,643	6%
Alaska*	27	6	N/A	N/A
Arizona	27	15	29,942	9%
Arkansas	17	11	43,178	7%
California	158	94	1,263,274	51%
Colorado	27	13	55,741	20%
Connecticut	19	12	48,084	47%
Delaware	9	7	41,510	89%
District of Columbia	7	6	22,190	27%
Florida	41	33	162,014	7%
Georgia	25	15	40,547	2%
Hawaii**	7	6	13,245	>100%
Idaho	7	3	8,843	3%
Illinois	69	48	192,635	30%
Indiana	16	15	33,467	4%
Iowa	12	8	45,624	13%
Kansas	10	9	94,607	27%
Kentucky	18	12	49,220	6%
Louisiana	23	21	100,843	6%
Maine**	10	10	55,260	>100%
Maryland	19	15	29,805	18%
Massachusetts	39	28	112,621	49%
Michigan	41	29	74,831	7%
Minnesota	11	11	69,232	15%
Mississippi	27	22	53,618	6%
Missouri	25	19	80,633	8%
Montana	8	3	14,904	10%
Nebraska	2	0	0	0%
Nevada	6	1	10,350	2%
New Hampshire	7	3	27,955	89%
New Jersey	22	13	25,931	5%
New Mexico	26	15	55,841	16%
New York	68	43	158,922	8%
North Carolina	25	16	35,500	2%
North Dakota	4	1	4,900	5%
Ohio	22	18	49,075	4%

State	Total Qualified Applications for Federal Funding, FYs 2002 and 2003	Unfunded Applications, FYs 2002 and 2003	Projected Patients From Unfunded Applications, FYs 2002 and 2003	Unrealized Reduction in 2003 Unserved
Oklahoma	15	13	42,758	7%
Oregon	31	16	45,452	14%
Pennsylvania	37	31	49,244	4%
Rhode Island**	15	13	33,029	>100%
South Carolina	30	17	41,842	6%
South Dakota	9	4	8,600	6%
Tennessee	20	14	60,817	5%
Texas	63	44	169,162	4%
Utah	12	8	16,967	4%
Vermont**	6	3	37,290	>100%
Virginia	23	14	21,485	2%
Washington	31	22	99,242	33%
West Virginia	22	12	39,305	16%
Wisconsin	10	7	16,550	2%
Wyoming	8	4	2,600	2%
United States	1,246	835	3,865,328	11%

* Because applications from Alaska are considered for federal funding through a separate process, Projected Patients from Unfunded Applications and Unrealized Reduction in Unserved are unknown.

** Because there is no limit on how many sites from each state may apply for federal health center funding, it is theoretically possible for a state to have more applications than existing need. However, as the table indicates, most states would still have significant outstanding need for health center services. Hawaii, Maine, Rhode Island, and Vermont are all exceptions. Given that federal funding is highly competitve, it is impossible for all applications to be funded at existing appropriation levels.

Note: This table does not include territories. Includes applications for new health centers and expanded medical capacity sites. Unrealized Reduction in 2003 Unserved is the proportion by which these projected patients from unfunded applications would have further reduced the 2003 Unserved number (see notes in the tables at Appendices A and B for an explanation) had these applications been funded.

Sources:
Applications and Projected Patients from Unfunded Applications: Bureau of Primary Health Care, HRSA, HHS, 2004.
Unrealized Reduction in 2003 Unserved: Based on NACHC REACH data on the unserved minus total health center patients.

Appendix D

Number and Percent of Low Income Uninsured Served by Health Centers by State

State	Low Income Unisured, 2001-2002	Low Income Uninsured Served in 2001*	New Low Income Uninsured Served 02-03*	Total Low Income Uninsured Served Thru 03	% of Low Income Uninsured Served, 2003
Alabama	414,328	109,596	255	109,851	27%
Alaska	53,276	17,082	15,790	32,872	62%
Arizona	623,125	63,602	24,844	88,446	14%
Arkansas	290,021	52,500	9,483	61,983	21%
California	4,321,309	839,682	268,877	1,108,558	26%
Colorado	437,802	163,719	43,285	207,004	47%
Connecticut	200,515	58,393	12,637	71,029	35%
Delaware	44,014	4,247	2,519	6,766	15%
District of Columbia	48,081	23,196	2,314	25,510	53%
Florida	1,819,778	249,307	33,432	282,739	16%
Georgia	842,454	90,958	22,395	113,353	13%
Hawaii	76,860	24298	912	25210	42%
Idaho	139,412	27,653	9,134	36,787	26%
Illinois	1,087,840	211,289	49,386	260,675	24%
Indiana	479,849	52,034	14,441	66,475	14%
Iowa	155,878	33,320	11,460	44,780	29%
Kansas	196,373	33,200	9,068	42,268	22%
Kentucky	357,373	80,499	16,715	97,214	27%
Louisiana	580,887	44,118	9,109	53,227	9%
Maine	81,107	16,656	0	16,656	21%
Maryland	399,197	42,953	13,623	56,576	14%
Massachusetts	304,403	112,863	19,602	132,465	44%
Michigan	692,887	95,343	30,114	125,457	18%
Minnesota	242,640	40,142	7,453	47,594	20%
Mississippi	334,423	127,783	16,515	144,297	43%
Missouri	369,615	92,197	10,692	102,889	28%
Montana	81,978	25,453	12,676	38,129	47%
Nebraska	94,796	13,674	7,605	21,279	22%
Nevada	251,748	21,909	12,753	34,662	14%
New Hampshire	59,845	11,804	2,415	14,218	24%
New Jersey	679,891	86,905	17,707	104,612	15%
New Mexico	272,672	88,366	21,619	109,985	40%
New York	1,857,085	255,601	44,421	300,022	16%
North Carolina	830,277	108,573	34,747	143,320	17%
North Dakota	39,917	4,589	8,219	12,808	32%
Ohio	833,353	84,832	7,309	92,142	11%
Oklahoma	387,283	33,382	11,971	45,353	12%

State	Low Income Unisured, 2001-2002	Low Income Uninsured Served in 2001*	New Low Income Uninsured Served 02-03*	Total Low Income Uninsured Served Thru 03	% of Low Income Uninsured Served, 2003
Oregon	313,677	60,628	30,186	90,814	29%
Pennsylvania	790,524	140,357	7,892	148,249	19%
Rhode Island	55,160	18,054	4,032	22,086	40%
South Carolina	318,536	67,815	20,424	88,239	28%
South Dakota	48,404	15,504	10,024	25,528	53%
Tennessee	390,211	53,261	10,310	63,571	16%
Texas	3,643,533	296,140	64,302	360,442	10%
Utah	204,699	37,863	14,943	52,806	26%
Vermont	30,603	3,772	3,664	7,436	24%
Virginia	532,088	52,872	14,048	66,920	13%
Washington	471,229	162,220	18,687	180,907	38%
West Virginia	165,645	70,996	19,513	90,509	55%
Wisconsin	269,416	25,733	6,023	31,756	12%
Wyoming	48,266	4,860	2,961	7,821	16%
United States	27,264,283	4,451,791	1,062,507	5,514,298	20%

* Because the vast majority of health center patients are low income, these figures were derived from the proportion of uninsured patients in each state served by health centers. The rate of uninsured patients was also applied to new users.

Note: Low income is defined as at or under 200% of poverty. Low Income Uninsured, 2001-2002 includes non-elderly. Health center uninsured patients are predominately non-elderly.

Sources:
Low Income Uninsured, 2001-2002: Kaiser Commission on Medicaid and Uninsured, prepared by the Urban Institute using the March 2003 and March 2002 Current Population Surveys.
Low Income Uninsured Served by Health Centers: NACHC, 2004 and based on data from the Bureau of Primary Health Care, HRSA, HHS including new patient data and Uniform Data System.